

Work Order ID 65955

January 28, 2011 7:40:47 AM



Page 1

Item ID:	D6103-003	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Round Billet, Aluminum					
Start Date:	1/28/11	Start Qty:	10.00		Cust Item ID:	
Required Date:	2/11/11	Req'd Qty:	10.00		Customer:	
Reference:						

Approvals:	Process Plan:	<u>CL</u>	Date:	<u>11/01/28</u>	Tooling:		Date:		Run	Start	
	QC:		Date:		SPC (Y/N):		Date:			Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D6103	Rev B

100		0.00	
	PURCHASING		
Purchasing	Memo	0.00	

Purchasing

Issue P/O: 13392 ☐ a) Description: Alluminum round billet ☐ b) Ø3.500" x 12.500" long ☐ c) Tolerance on all dimensions are +0.030"/-0.000"

☐ d) Material: 7075-T7351 (QQ-A-225/9) ☐ Material certification required

CL 11/01/28 (10)

110	Receive & Inspect for Damage & Mat'l Certs	0.00	
Packaging	Memo	0.00	
Packaging	Ensure material certification is attached		

Cap/48 (11)

120	QC6- Inspect dimensions to drawing	0.00	
QC	Memo	0.00	
Quality Control			

CL 11/02/09 (11)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 65955

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Item ID: D6103-003

Accept



Setup Start



Revision ID:

Stop



Item Name: Round Billet, Aluminum

Start Date: 1/28/11 Start Qty: 10.00



Cust Item ID:

Required Date: 2/11/11 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

Identify as per dwg & Stock Location: MAT43

0.00

SL 1/102/09



Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

1/102/09 J

CL11102109

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 28, 2011 7:40:46 AM

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Work Order ID: 65955



Parent Item: D6103-003



Parent Item Name: Round Billet, Aluminum



Start Date: 1/28/11

Required Date: 2/11/11

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A New Issue 06-02-09 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6103-003P  round alum billet		Purchased	No			110	Each	0.0000	1 	10		2/11/11 (11)	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

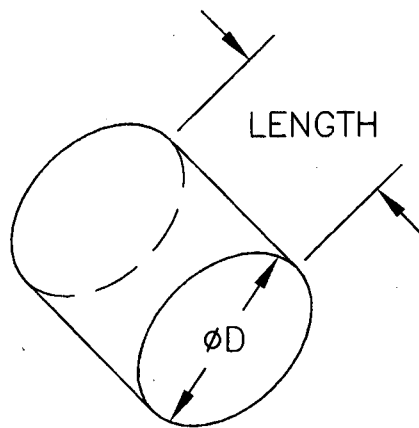
NOTE: Date & initial all entries



DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D6103	Rev. B SHEET 1 OF 1
DATE 06.01.31		TITLE ROUND BILLET, ALUMINUM	SCALE NTS
A	01.04.10	NEW ISSUE	
B	06.01.31	ADD D6103-003	

SPECIFICATION CONTROL DRAWING

RELEASED
06.02.07



CL 11101128
W10'65955

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	D (Diameter)	Length
D6103-001	7075-T6/T651 (QQ-A-200/11 OR QQ-A-225/9)	Ø3.250	12.50
D6103-003	7075-T7351 (QQ-A-225/9)	Ø3.500	12.50

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO13392

Purchase Order Date 1/28/11

PO Print Date 1/28/11

Page Number 2 of 2

Order From :

VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100
TORONTO, ON M4Y 3A5
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	514 694 9575	Requisition Nbr	
Vendor Fax	514 695 3281	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

D6103-003P

round alum billet

2/11/11
Yes

10.00
Each

Yours ppd

\$71.0000

\$710.00

Special Inst: AS PER DWG D6103 REV. B
B65955
MATERIAL: 7075-T7351 AS PER QQ-A-
225/9
SIZE: 3.500" X 12.500" LONG
TOLERANCE SAME AS ABOVE

Rec'd 11/2/11

4 D6104-005P 17-4 SS Roundbar 4.00"OD

2/11/11
Yes

10.00
Each

Yours ppd

\$76.0000

\$760.00

Special Inst: AS PER DWG D6104 REV. B
B65956
MATERIAL: 17-4 PH STAINLESS STEEL
AS PER AMS 5643 OR AISI 630
SIZE: 4.00" X 5.10" LONG
TOLERANCE SAME AS ABOVE

Rec'd 11/2/11

PO Total:

\$4,275.00

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 1/28/11

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP

Page 1 of 1

Shipment No:671080

Ship From: Castle Metals MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 07-FEB-11	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 671080-2	

Shipment Details	Final Destination Branch - MON
-------------------------	---------------------------------------

Order No 1249273	Line No 3	Item No 8808.MO	Description 3.5000.RD.7075.T7351.ALUMINUM.CF.132.0000-144.0000 CUT TO 12.5 IN (+ .0620/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: QQ-A-225/9				
Purchase Order No 13392		Part Number		Ordered Qty 11 PCS		Invoice Qty 11 PCS	
Details							
Delivery No. 68039313	Mill	Heat Number MA010096684	Mech Id	PCS 11	Width (IN)	Length (IN)	Shipped Qty (LBS) 133.38

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Certified Inspection Report

12/03/10
09:15:28

Alcoa Inc.
Massena Operations
Park Avenue East, Massena, NY 13662



Customer
Castle A M & Co

Customer P.O. No.
75780

Customer Part No.
(8808)

Alcoa Order No.
MMC-95695-005

Govt. Contract No.

NOTES:

Mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product.

This alloy meets the requirements of EU 2002/95/EC (RoHS) and EU 2000/53/EC for lead, mercury, cadmium and hexavalent chromium.

Castle Metals FP

HEAT NUMBER MA010096684
MECHANICAL ID _____
ITEM CODE 8808
LOT NUMBER _____
PO NUMBER 75780
RECEIPT DATE 12-7-2010
SUPPLIER ALCOA
SPECIFICATION _____
LCS NO
COMMENT _____
APPROVED AS

Certified Inspection Report

12/03/10
09:15:28

Alcoa Inc.
Massena Operations
Park Avenue East, Massena, NY 13662



Customer
Castle A M & Co

Customer P.O. No.
75780

Customer Part No.
(8808)

Alcoa Order No.
MMC-95695- -005

Govt. Contract No.

Ship To **A. M. Castle & Company**
3400 North Wolf Road
Bay #7
Franklin Park, IL 60131

We hereby certify that the material covered in this report has been inspected in accordance with, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and have the mechanical properties shown on the face of this sheet. Manufactured under an ISO/QS-9000 registered quality management system.
Melted and manufactured in the USA.

Thomas J. Klemp, Quality Assurance Manager

Thomas J. Klemp

Date Shipped **12/03/10**

Weight Shipped **2,246 lbs**

Product **CFRB-CF ROD Specific Length**

BOL **000159003**

Alloy - Temper **7075-T7351**

Size **3.50000 IN**

Shape **DIA** Config **12 FT**

QRR

Specifications:

A97075-11 Rev 10 w/exc & comments per T
Klemp email dtd 1/5/10
Material conforms to T73 requirements
Minimum mechanical properties to apply:
68 KSI Tensile Strength
56 KSI Yield Strength
10% Elongation
AMS 4124D (Except Size)
QQA-225/9E (Except Size)
ASTM B211-03 (Except Size)
AMS-QQA-225/9 (Except Size)

Product produced and marked to the requirements of AMS-QQ-A-225/9 also meets the requirements of QQ-A-225/9.
Product produced and marked to the requirements of QQ-A-225/9 also meets the requirements of AMS-QQ-A-225/9.

TEST REQUIREMENTS	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
	U.T.S.	T.Y.S.	%Elong	Cond						
Max:		67.9								
Min:	68.0	56.0	10.0	38.0						

Test Results	Lot / Work Order	No. of Tests	Test	Test	Test	Test	Test	Test	Test	Test
			U.T.S.	T.Y.S.	%Elong	Cond				
	MA010096684	1	71.8	60.9	13.0	41.4				
			71.8	60.9	13.0	41.4				

TEST ABBREVIATIONS

U.T.S. Ultimate Tensile Strength KSI
Cond Conductivity % IACS

T.Y.S. Tensile Yield Strength KSI

%Elong Elongation % in 2"

Aluminum Association Chemical Composition Limits (in Weight %)

ALLOY	MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%Others	%Others	%AL			
7075	MIN	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15	Rem			
				1.2		2.1	0.18	5.1		Each	Total				

Actual Started Chemistry

LOT/WORK ORDER	MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%OE	%OT	%AL			
MA010096684	MIN	0.09	0.18	1.5	0.02	2.4	0.21	5.7	0.02	LT 0.05	LT 0.15	Rem			
		0.08	0.16	1.4	0.02	2.3	0.19	5.5	0.02						